

Fig. 1B

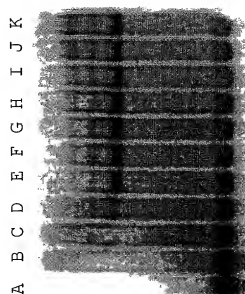


Fig. 1A

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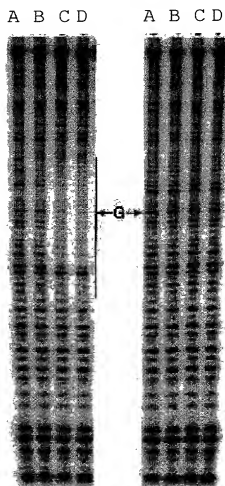


Fig. 1C

Fig. 1D

FIG. 1E

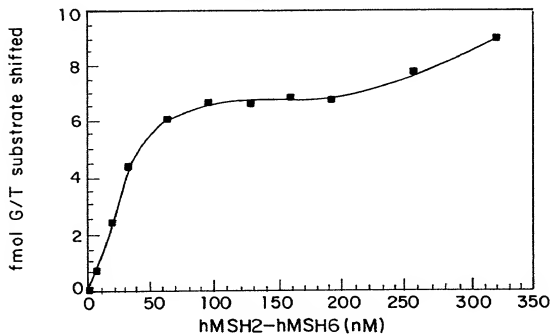
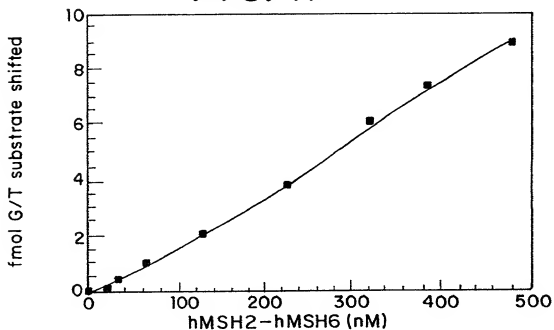


FIG. 1F



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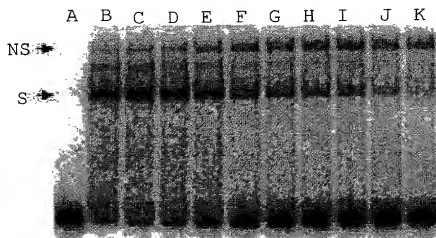


Fig. 2A

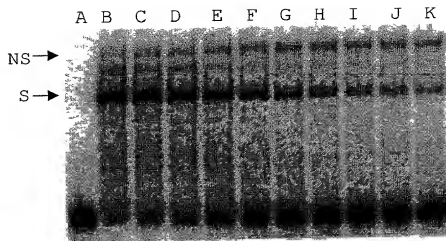


Fig. 2B

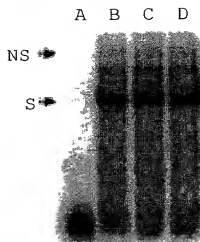


Fig. 2C

FIG. 2D

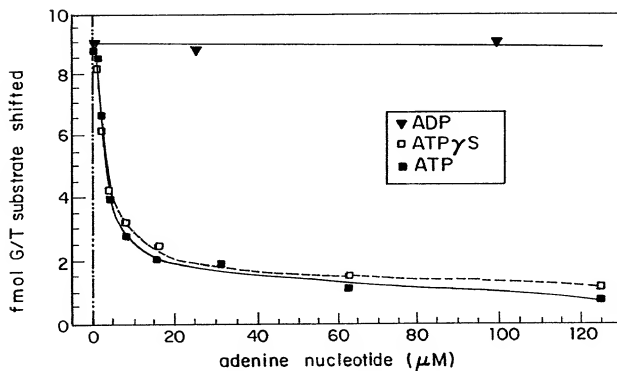
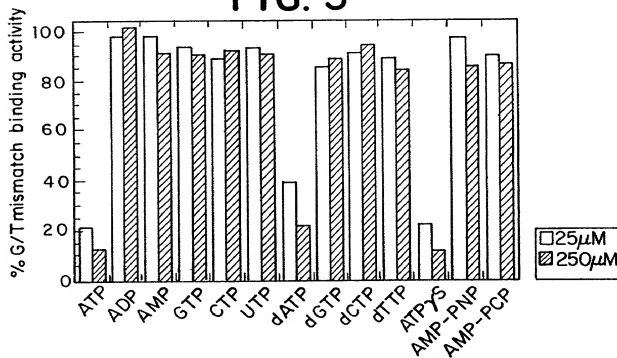


FIG. 3



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FIG. 4A

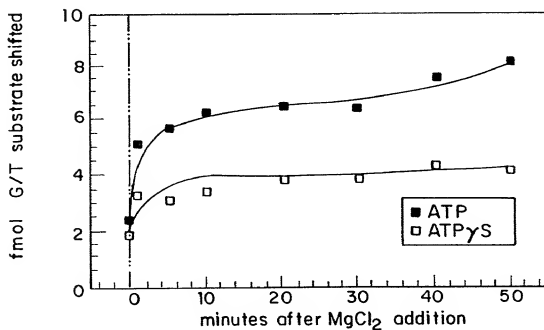
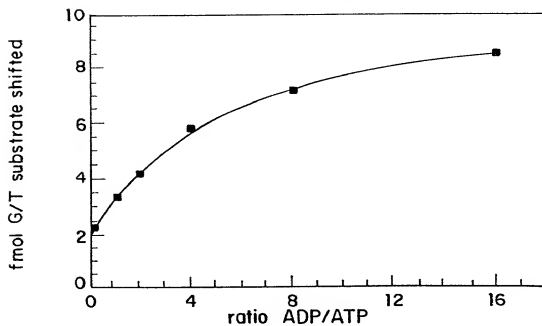


FIG. 4B



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FIG. 5A

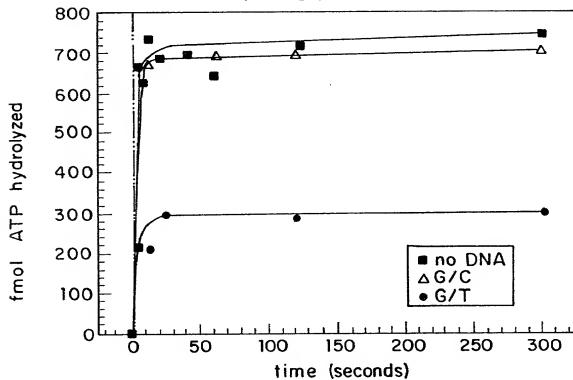
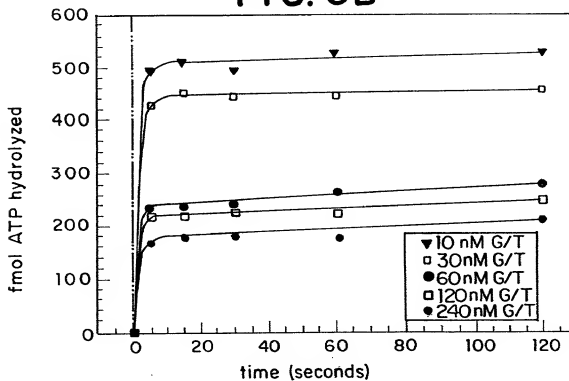


FIG. 5B



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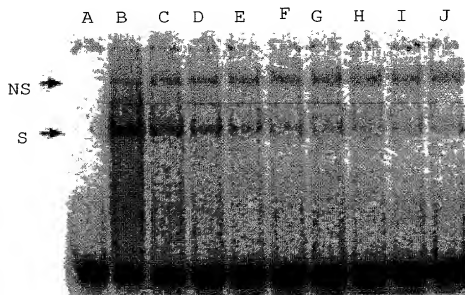


Fig. 6A

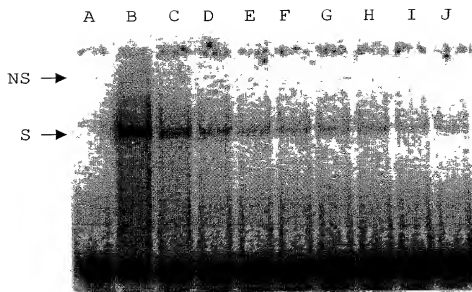


Fig. 6B

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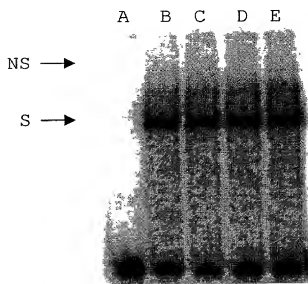


Fig. 6C

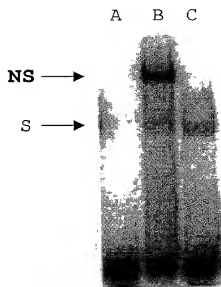


Fig. 6D

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FIG. 7

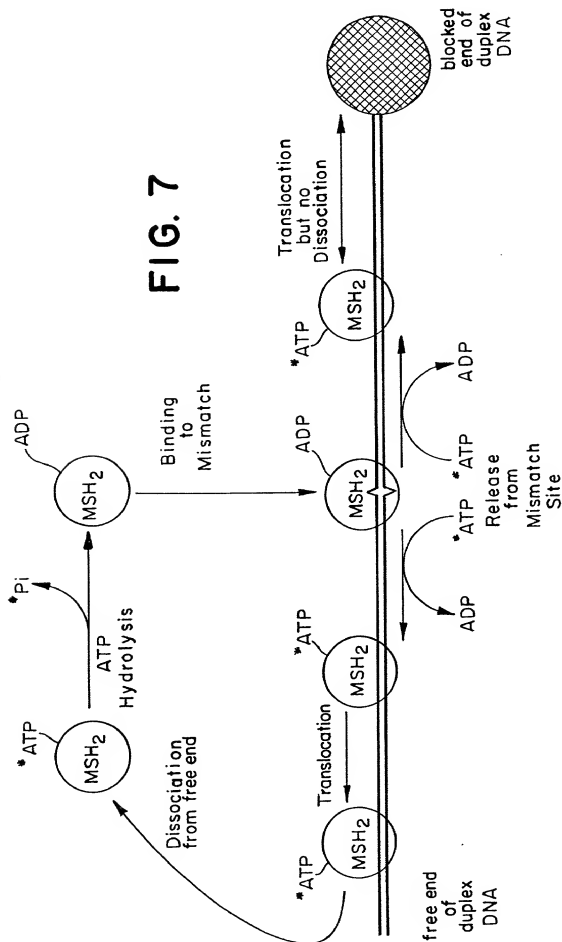


Fig. 8A

CCTGGTACCT CGAGCGATCA AGCTTGGTGG AATTCGCCG

Fig. 8B

CCTGGTACCT CGAGCGATCG AGCTTGGTGG AATTCGCCG

Fig. 8C

ACTATAGGGC GAATTGGGTA CCGCTGAATT GCACCGAGCT CGATCCTCGA
TGATCCTAAG CTAAGCTTCA GCTCCAGCTT T

Fig. 8D

ACTATAGGGC GAATTGGGTA CCGCTGAATT GCACCGAGCT TGATCCTCGA
TGATCCTAAG CTAAGCTTCA GCTCCAGCTT T



Fig. 9A



Fig. 9C

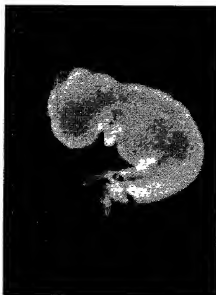


Fig. 9D

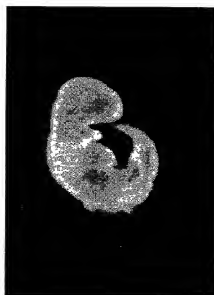


Fig. 9B

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Fig. 10C

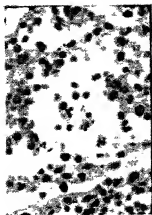


Fig. 10B

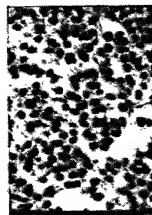


Fig. 10A



Fig. 10F



Fig. 10E



Fig. 10D

702280-6061E660

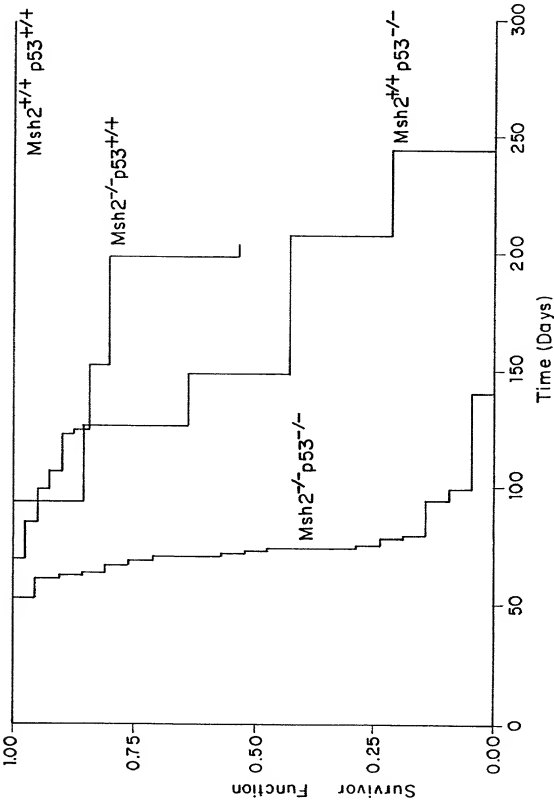


FIG. 11

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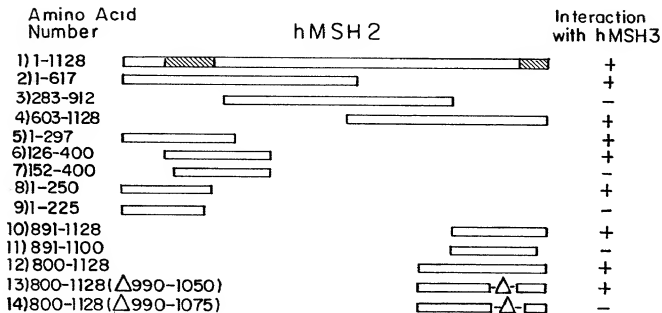


FIG. 12

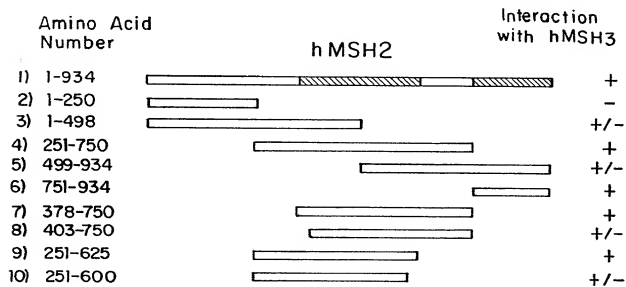


FIG. 13

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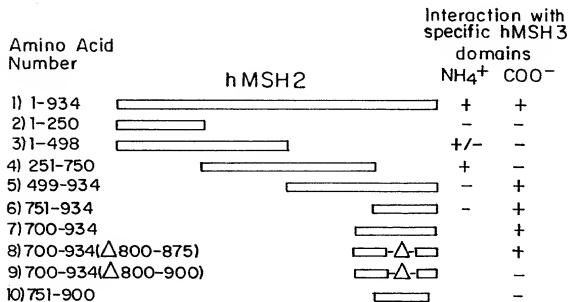


FIG. 14

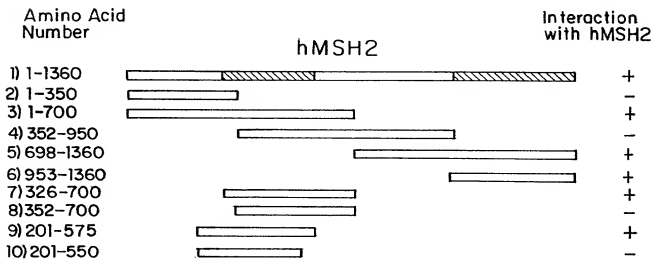


FIG. 15

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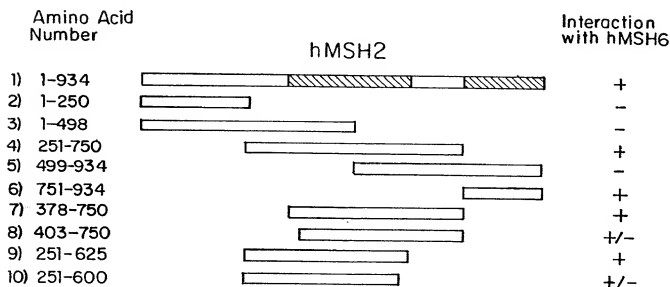


FIG. 16

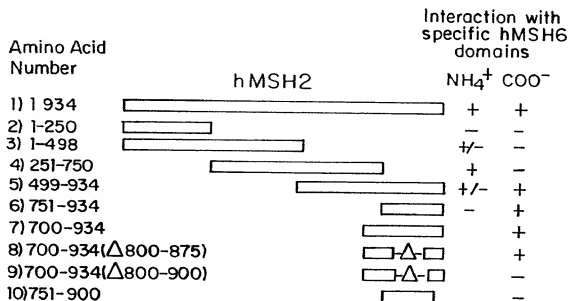


FIG. 17

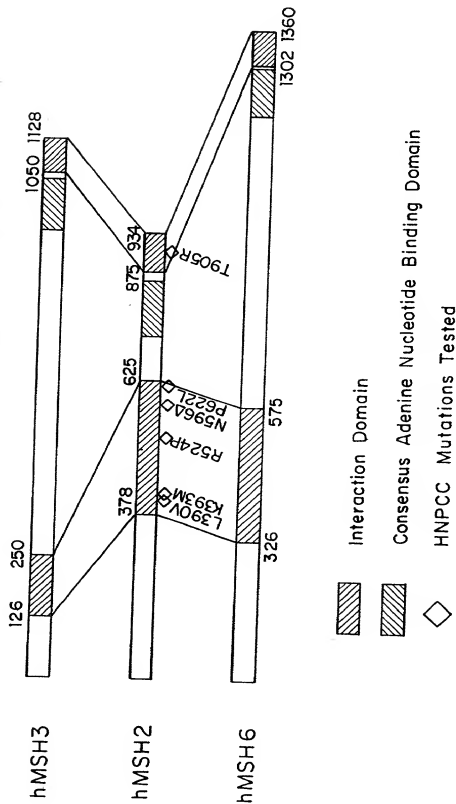


FIG. 18

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1 CAGAAACCTCATCTTCGCGGTGAGGAGGTTTGGGAGGGC
 44 GTGGCGGTGCGTCCAGCGGGCGTTCTCCACCTAGCGACTCAGAGCCTCCCAAGTC
 1 Met Ala Ser Leu Gly Ala Asn Pro Arg Arg Thr Pro Gln Gly Pro
 102 ATG GCC TCC TTA GGA GCG AAC CCA AGG AGG ACA CCG CAG GGA CCG
 16 Arg Pro Gly Ala Ala Ser Ser Gly Phe Pro Ser Pro Ala Pro Val
 147 AGA CCT GGG GCG GCC TCC TCC GGC TTC CCC AGC CCG GCC CCA GTG
 31 Pro Gly Pro Arg Glu Ala Glu Glu Glu Val Glu Glu Glu Glu
 192 CCG GGC CCC AGG GAG GCC GAG GAG GAA GTC GAG GAG GAG GAG
 46 Glu Leu Ala Glu Ile His Leu Cys Val Leu Trp Asn Ser Gly Tyr
 237 GAG CTG GCC GAG ATC CAT CTG TGT GTG CTG TGG AAT TCA GGA TAC
 61 Leu Gly Ile Ala Tyr Tyr Asp Thr Ser Asp Ser Thr Ile His Phe
 282 TTG GGC ATT GCC TAC TAT GAT ACT AGT GAC TCC ACT ATC CAC TTC
 76 Met Pro Asp Ala Pro Asp His Glu Ser Leu Lys Leu Gln Arg
 327 ATG CCA GAT GCC CCA GAC GAG AGC CTC AAG CTT CTC CAG AGA
 91 Val Leu Asp Glu Ile Asn Pro Gln Ser Val Val Thr Ser Ala Lys
 372 GTT CTG GAT GAG ATC AAT CCC CAG TCT GTT GTT ACG ACT GCC AAA
 106 Gln Asp Glu Asn Met Thr Arg Phe Leu Gly Lys Leu Ala Ser Gln
 417 CAG GAT GAG AAT ATG ACT CGA TTT CTG GGA AAG CTT GCC TCC CAG

Fig. 19A

121 Glu His Arg Glu Pro Lys Arg Pro Glu Ile Ile Phe Leu Pro Ser
 462 GAG CAC AGA GAG CCT AAA AGA CCT GAA ATC ATA TTT TTG CCA AGT

136 Val Asp Phe Gly Leu Glu Ile Ser Lys Gln Arg Leu Leu Ser Gly
 507 GTG GAT TTT GGT CTG GAG ATA AGC AAA CAA CGC CTC CTT TCT GGA

151 Asn Tyr Ser Phe Ile Pro Asp Ala Met Thr Ala Thr Glu Lys Ile
 552 AAC TAC TCC TTC ATC CCA GAC GCC ATG ACT GCC ACT GAG AAA ATC

166 Leu Phe Leu Ser Ser Ile Ile Pro Phe Asp Cys Leu Leu Thr Val
 597 CTC TTC CTC TCT TCC ATT CCC TTT GAC TGC CTC CTC ACA GTT

181 Arg Ala Leu Gly Gly Leu Lys Phe Leu Gly Arg Arg Arg Ile
 642 CGA GCA CTT GGA GGG CTG CTG AAG TTC CTC GGT CGA AGA AGA ATC

196 Gly Val Glu Leu Glu Asp Tyr Asn Val Ser Val Pro Ile Leu Gly
 687 GGG GTT GAA CTG GAA GAC TAT AAT GTC AGC GTC CCC ATC CTG GGC

211 Phe Lys Lys Phe Met Leu Thr His Leu Val Asn Ile Asp Gln Asp
 732 TTT AAG AAA TTT ATG TTG ACT CAT CTG GTG AAC ATA GAT CAA GAC

226 Thr Tyr Ser Val Leu Gln Ile Phe Lys Ser Glu Ser His Pro Ser
 777 ACT TAC AGT GTT CTA CAG ATT TTT AAG AGT GAG TCT CAC CCC TCA

241 Val Tyr Lys Val Ala Ser Gly Leu Lys Glu Gly Leu Ser Leu Phe
 822 GTG TAC AAA GTG GCC AGT GGA CTG AAG GAG GGG CTC AGC CTC TTT

Fig. 19B

256Gly Ile Leu Asn Arg Cys His Cys Lys Trp Gly Glu Lys Leu Leu
 867 GGA ATC CTC AAC AGA TGC CAC TGT AAG TGG GGA GAG AAG CTG CTC

271 Arg Leu Trp Phe Thr Arg Pro Thr His Asp Leu Gly Glu Leu Ser
 912 AGS CTA TGG TTC ACA CGT CCG ACT CAT GAC CTG GGG GAG CTC AGT

286 Ser Arg Leu Asp Val Ile Gln Phe Phe Leu Leu Pro Gln Asn Leu
 957 TCT CGT CTG GAC GTC ATT CAG TTT TTT CTG CTG CCC CAG AAT CTG

301 Asp Met Ala Gln Met Leu His Arg Leu Leu Gly His Ile Lys Asn
 1002 GAC ATG GCT CAG ATG CTG CAT CGG CTC CTG GGT CAC ATC AAG AAC

316 Val Pro Leu Ile Leu Lys Arg Met Lys Leu Ser His Thr Lys Val
 1047 GTG CCT CTG ATT CTG AAA CGC ATG AAG TTG TCC CAC ACC AAG GTC

331 Ser Asp Trp Gln Val Leu Tyr Lys Thr Tyr Ser Ala Leu Gly
 1092 AGC GAC TGG CAG GTT CTC TAC AAG ACT GTG TAC AGT GCC CTG GGC

346 Leu Arg Asp Ala Cys Arg Ser Leu Pro Gln Ser Ile Gln Leu Phe
 1137 CTG AGG GAT GCC TGC CGC TCC CTG CCG CAG TCC ATC CAG CTC TTT

361 Arg Asp Ile Ala Gln Glu Phe Ser Asp Asp Leu His His Ile Ala
 1182 CGG GAC ATT GCC CAA GAG TTC TCT GAT GAC CTG CAC CAT ATC GCC

376 Ser Leu Ile Gly Lys Val Val Asp Phe Glu Gly Ser Leu Ala Glu
 1227 AGC CTC ATT GGG AAA GTA GTG GAC TTT GAG GGC AGC CTT GCT GAA

Fig. 19C

391 Asn Arg Phe Thr Val Leu Pro Asn Ile Asp Pro Glu Ile Asp Glu
 1272 AAT CGC TTC ACA GTC CTC CCC AAC ATA GAT CCT GAA ATT GAT GAG

406 Lys Lys Arg Arg Leu Met Gly Leu Pro Ser Phe Leu Thr Glu Val
 1317 AAA AAG CGA AGA CTG ATG GGA CTT CCC AGT TTC CTT ACT GAG GTT

421 Ala Arg Lys Glu Leu Glu Asn Leu Asp Ser Arg Ile Pro Ser Cys
 1362 GCC CGC AAG GAG CTG GAG AAT CTG GAC TCC CGT ATT CCT TCA TGC

436 Ser Val Ile Tyr Ile Pro Leu Ile Gly Phe Leu Leu Ser Ile Pro
 1407 AGT GTC ATC TAC ATC CCT CCT CTG ATT GGC TTC CTT TCT ATT CCC

451 Arg Leu Pro Ser Met Val Glu Ala Ser Asp Phe Glu Ile Asn Gly
 1452 CGC CTG CCT TCC ATG GTA GAG GCC AGT GAC TTT GAG ATT AAT GGA

466 Leu Asp Phe Met Phe Leu Ser Glu Glu Lys Leu His Tyr Arg Ser
 1497 CTG GAC TTC ATG TTT CTC TCA GAG GAG AAG CTG CAC TAT CGT AGT

481 Ala Arg Thr Lys Glu Leu Asp Ala Leu Leu Gly Asp Leu His Cys
 1542 GCC CGA ACC AAG GAG CTG GAT GCA TTG CTG GGG GAC CTG CAC TGC

496 Glu Ile Arg Asp Gln Glu Thr Leu Leu Met Tyr Gln Leu Gln Cys
 1587 GAG ATC CGG GAC CAG GAG ACG CTG CTG ATG TAC CAG CTA CAG TGC

511 Gln Val Leu Ala Arg Ala Ala Val Leu Thr Arg Val Leu Asp Leu
 1632 CAG GTG CTG GCA CGA GCA GCT GTC TTA ACC CGA GTA TTG GAC CTT

Fig. 19D

526 Ala Ser Arg Leu Asp Val Leu Leu Ala Ser Ala Ala Arg
 1677 GCC TCC CGC CTG GAC GTC CTG CTG GCT CTT GCC AGT GCT GCC CGG

541 Asp Tyr Gly Tyr Ser Arg Pro Arg Tyr Ser Pro Gln Val Leu Gly
 1722 GAC TAT GGC TAC TCA AGG CCG CGT TAC TCC CCA CAA GTC CTT GGG

556 Val Arg Ile Gln Asn Gly Arg His Pro Leu Met Glu Leu Cys Ala
 1767 GTA CGA ATC CAG AAT GGC AGA CAT CCT CTG ATG GAA CTC TGT GCC

571 Arg Thr Phe Val Pro Asn Ser Thr Glu Cys Gly Gly Asp Lys Gly
 1812 CGA ACC TTT GTG CCC AAC TCC ACA GAA TGT GGT GGC GAC AAA GGG

586 Arg Val Lys Val Ile Thr Gly Pro Asn Ser Ser Gly Lys Ser Ile
 1857 AGG GTC AAA GTC ATC ACT GGA CCC AAC TCA TCA GGG AAG AGC ATA

601 Tyr Leu Lys Gln Val Gly Leu Ile Thr Phe Met Ala Leu Val Gly
 1902 TAC CTC AAA CAG GTA GGC TTG ATC ACA TTC ATG GCC CTG GTA GGC

616 Ser Phe Val Pro Ala Glu Glu Ala Glu Ile Gly Ala Val Asp Ala
 1947 AGC TTT GTG CCA GCA GAG GAG GCC GAA ATT GGG GCA GTA GAC GCC

631 Ile Phe Thr Arg Ile His Ser Cys Glu Ser Ile Ser Leu Gly Leu
 1992 ATC TTC ACA CGA ATT CAT AGC TGC GAA TCC ATC TCC CTT GGC CTC

646 Ser Thr Phe Met Ile Asp Leu Asn Gln Val Ala Lys Ala Val Asn
 2037 TCC ACC TTC ATG ATC GAC CTC AAC CAG GTG GCG AAA GCA GTG AAC

Fig. 19E

661 Asn Ala Thr Ala Gln Ser Leu Val Leu Ile Asp Glu Phe Gly Lys
 2082 AAT GCC ACT GCA CAG TCG CTG CTT ATT GAT GAA TTT GGA AAG
 676 Gly Thr Asn Thr Val Asp Gly Leu Ala Leu Leu Ala Val Leu
 2127 GGA ACC AAC ACG GTG GAT GGG CTC GCG CTT CTG GCC GCT GTG CTC
 691 Arg His Trp Leu Ala Arg Gly Pro Thr Cys Pro His Ile Phe Val
 2172 CGA CAC TGG CTG GCA CGT GGA CCC ACA TGC CCC CAC ATC TTT GTG
 706 Ala Thr Asn Phe Leu Ser Leu Val Gln Leu Gln Leu Leu Pro Gln
 2217 GCC ACC AAC TTT CTG AGC CTT GTT CAG CTA CAA CTG CTG CCA CAA
 721 Gly Pro Leu Val Gln Tyr Leu Thr Met Glu Thr Cys Glu Asp Gly
 2262 GGG CCC CTG GTG CAG TAT TTG ACC ATG GAG ACC TGT GAG GAT GGC
 736 Asn Asp Leu Val Phe Phe Tyr Gln Val Cys Glu Gly Val Ala Lys
 2307 AAC GAT CTT GTC TTC TTC TAT CAG GTT TGC GAA GGT GTT GCG AAG
 751 Ala Ser His Ala Ser His Thr Ala Ala Gln Ala Gly Leu Pro Asp
 2352 GCC AGC CAT GCC TCC CAC ACA GCT GCC CAG GCT GGG CTT CCT GAC
 766 Lys Leu Val Ala Arg Gly Lys Glu Val Ser Asp Leu Ile Arg Ser
 2397 AAG CTT GTG GCT CGT GGC AAG GAG GTC TCA GAC TTG ATC CGC AGT
 781 Gly Lys Pro Ile Lys Pro Val Lys Asp Leu Leu Lys Lys Asn Gln
 2442 GGA AAA CCC ATC AAG CCT GTC AAG GAT TTG CTA AAG AAG AAC CAA

Fig. 19F

796 Met Glu Asn Cys Gln Thr Leu Val Asp Lys Phe Met Lys Leu Asp
 2487 ATG GAA AAT TGC CAG ACA TTA GTG GAT AAG TTT ATG AAA CTG GAT

811 Leu Glu Asp Pro Asn Leu Asp Leu Asn Val Phe Met Ser Gln Glu
 2532 TTG GAA GAT CCT AAC CTG GAC TTG AAC GTT TTC ATG AGC CAG GAA

826 Val Leu Pro Ala Ala Thr Ser Ile Leu stop
 2577 GTG CTG CCT GCT GCT GCC ACC AGC ATC CTC TGA GAGTCCTTCCAGTGTCTC

2626 CCCAGCCTCCTGAGACTCCGGTGGCTGCCATGCCCTCTTTGTTTCCCTTATCTCCCTCA
 2686 GACGCAGAGTTTTTAGTTTCTCACAATCTAATGTAATAATATATCTTAA

Fig. 19G